

example, runny noises as pictures are taken.

#### Detail Description Paragraph - DETX (43):

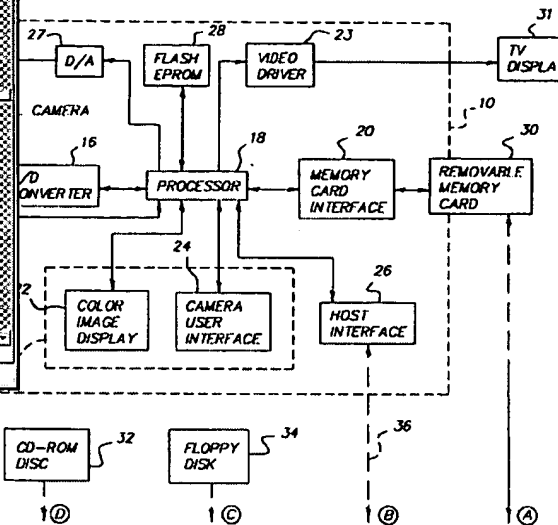
[0068] Configuring the firmware stored in the Flash EPROM 28 in the digital camera 10 to support various image resolution or compression levels, compression algorithms, or image tile formats, or to provide the ability to modify captured images as they are processed, such as by digital zooming and cropping, tone or color adjustments, or sharpness adjustments;

#### Detail Description Paragraph - DETX (44):

[0069] Configuring the firmware stored in the Flash EPROM 28 in the digital camera 10 to provide red-eye removal, as described in commonly assigned U.S. patent application Ser. No. 09/290,290, filed Apr. 13, 1999 (docket 77.739) to Fredlund, the disclosure of which is herein incorporated by reference;

#### Detail Description Paragraph - DETX (45):

[0070] Configuring the firmware components stored in the Flash EPROM 28 in the digital camera 10 to provide the ability to select one or more border templates that may be combined with newly captured digital images, as described in commonly assigned U.S. Pat. No. 5,477,264 to Sarbadhikari et al., the



EAST Advanced Find			
Find what: <input type="text" value="crop"/>			
Area	Direction	Match word	Look in
<input type="radio"/> All	<input type="radio"/> Up	<input type="radio"/> Whole	<input type="radio"/> Grid
<input type="radio"/> Sel/Our	<input type="radio"/> Down	<input type="radio"/> Part	<input type="radio"/> Documents
		<input type="radio"/> Right	<input type="checkbox"/> Match case
12		US 20010030695 A1	20011018 Customiz
13		US 20030179301 A	20030925 Digital ca recorded

	U	1	Document ID	Issue Date	
18			US 20020140998 A1	20021003	Document reduced
19			US 5043758 A	19910827	Dual film dedicated
20			US 5122821 A	19920616	Dual film dedicated

## Detailed Description Text - DETX (24):

As stated above, a digital working image is captured in all three image capture modes of operation that corresponds to an image resolution and has an image size corresponding to an aspect ratio of the CCD image sensor 94. The resolution of a digital image subsequently stored or displayed, however, is varied based on the type of image capture mode selected. In the digital image capture mode, a full resolution digital mode image is stored without cropping in a memory card coupled to the interface connector 130. See FIG. 13A, for example. In the film image capture mode, where the digital image will only be utilized for display on the main screen display unit 36 to show the operator what was captured on film, a film mode image of a lower resolution is prepared by electronically cropping and interpolating the full resolution digital image to respectively correspond to the resolution of the main screen display unit 36 and to the aspect ratio of the photographic film images, and is stored in the base camera memory 126. See FIGS. 13B-D, for example. In the hybrid image capture mode, where it is desirable to match the image size of the digital image to the aspect ratio of the image to be captured on photographic film but retain a high resolution digital image, the digital image is electronically cropped to create a hybrid mode image which is stored in a memory card coupled to the interface connector 30. See also FIGS. 13B-D. Accordingly, a film mode image and a hybrid mode image are essentially cropped versions of the digital mode image with respectively different and equal resolutions.

	U	1	Document ID	Issue Date	
29	<input type="checkbox"/>	<input type="checkbox"/>	US 5294983 A	19940315	Field sync
30	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 5845166 A	19981201	Hybrid ca images
31	<input type="checkbox"/>	<input type="checkbox"/>	US 6496655 B1	20021217	Hybrid ca electronic

Dec. 1, 1998

Sheet 10 of 13

5,845,166

FORMAT  
0 (4:3)

FIG. 13A

HDTV FORMAT  
640x364 (7:4)

FIG. 13B

WVC FORMAT  
4 (20:7)

FIG. 13C

CLASSIC FORMAT  
520x364 (10:7)

FIG. 13D

ID IIF IDF

FIG. 14

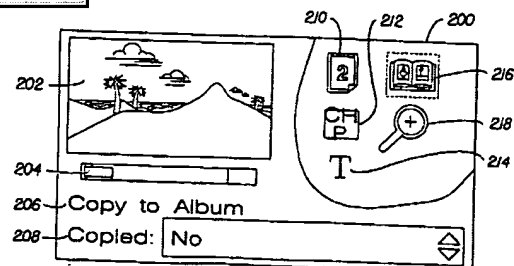


FIG. 15

match the image captured on the film. The camera includes a first lens having multiple focal lengths and a second lens having two selectable focal lengths. The image is focused through the first lens onto the film to capture the image photographically, while the image is focused through the second lens on an electronic sensor to capture at least the image electronically. A controller in the camera selects the focal length of the second lens to maximize the resolution of the portion of the image captured on the electronic sensor which matches the image captured on the film. The image captured on the electronic sensor may be cropped by the controller to match the image captured on the film. The controller can display the cropped image on a color LCD screen, thereby allowing the user to view the same image as captured on film, or store the cropped image in memory.

## TITLE - TI (1):

Hybrid electronic-film camera

## Brief Summary Text - BSTX (2):

The present invention relates to a camera (and method) for capturing an image photographically and electronically, and relates particularly to, a camera for capturing an image photographically through a first multiple focal length lens and electronically through a second lens having two selectable

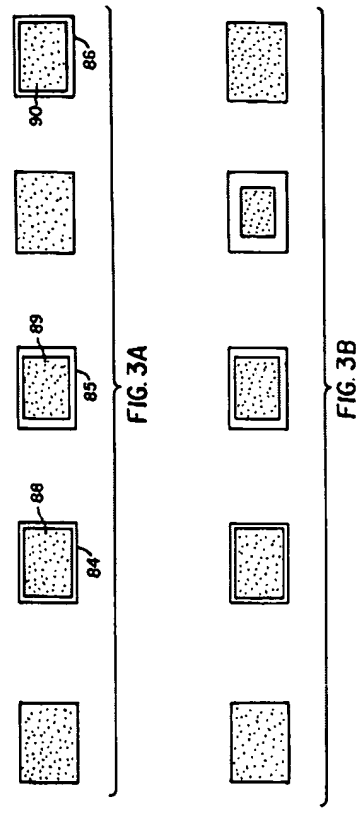
Details Text Image HTML KWIC

	U	1	Document ID	Issue Date	
33			US 6505003 B1	20030107	Hybrid ca film unit r
34			US 5822625 A	19981013	Hybrid ele
35			US 3836246 A	19740917	IMAGE S

Oct. 13, 1998

Sheet 5 of 5

5,822,625





## Detailed Description Text - DETX (91):

Input image storage section 501 describes steps for storing images recorded by such means as camera and contains the image data to be subjected to the recognition process. The data may be any type of binary image, multi-valued gray image or color image.

## Detailed Description Text - DETX (93):

Target cropping section 503 performs cropping of a target region from an input image stored in the input image storage section 501. Although dependent on the method used in similarity computation section 504, a target region must be cut out so as to be directly comparable with reference patterns. For example, when using the correlation factor to judge the degree of resemblance, the reference pattern and the target region must have the same size and shape. Although the present cropping method is based on directional differentiation, it is still necessary to match the size and shape of the target image to those of the reference pattern as in other methods.

## Detailed Description Text - DETX (132):

An abnormality detection method will now be explained with reference to

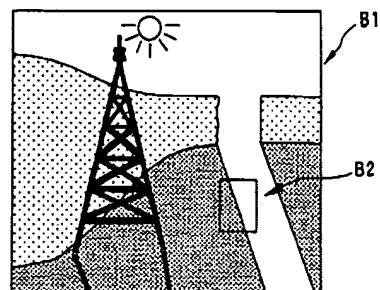
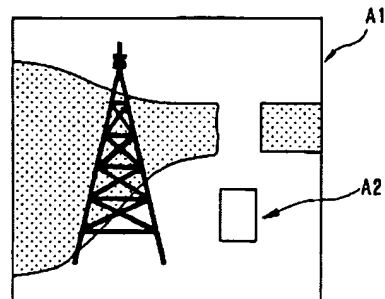
Details: Text Image HTML KWIC

	U	1	Document ID	Issue Date	
73			US 20010022667 A1	20010920	Method, a
74			US 6272244 B1	20010807	Methods method for image pro
75			US 6041143 A	20000321	Multiresol method

Aug. 7, 2001

Sheet 11 of 11

US 6,272,244 B1



manipulations. Throughout the study, observers were asked to continue to refer to the reference image when providing their ratings. Finally, observers were asked to categorize the images as "Acceptable" or "Unacceptable." They provided acceptability categories without referring to the reference.

#### Claims Text - CLTX (24):

24. A computer program product for using empirically derived image quality data for determining an image resolution for a particular zoom and/or crop of an image, said computer program comprising: a computer readable storage medium having a computer program stored thereon for performing the steps of: selecting a particular amount of zoom and/or crop; selecting an acceptability value, wherein the acceptability value relates to empirically derived image quality as perceived by a human viewer; selecting a particular output medium from a plurality of output media; and generating an image resolution from a combination of the selected zoom and/or crop, acceptability value and the particular output medium for specifying the image resolution to produce the desired zoom and/or crop. ■

#### Claims Text - CLTX (28):

28. A computer program product for determining the minimally acceptable

resolution of an image that is selected for a particular zoom and/or crop

Details | Text | Image | HTML | KWIC

	U	1	Document ID	Issue Date	
66			US 5797805 A	19980825	Method a
67			US 6643416 B1	20031104	Method for Images
68			US 20040022423 A1	20040205	Method for

Nov. 4, 2003

Sheet 6 of 6

US 6,643,416 B1

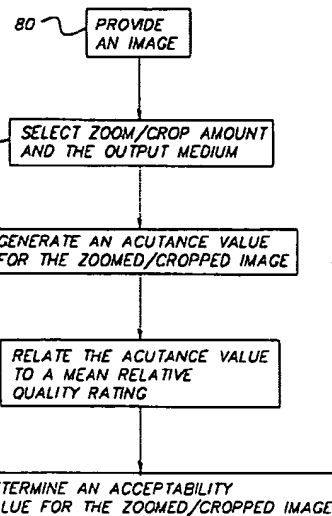


FIG. 6